**Advanced Algebra Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Chapter 2 Test Review**

**1.** A 3 mile cab ride costs $3.00 and a 6 mile cab ride costs $4.80.

1. Find the linear model for the situation presented above.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. How much does a 10 mile cab ride cost?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. How many miles can you ride if you have $6.00 for cab fare?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Describe in context what the value of the slope represents.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Describe in context what the value of the y-intercept represents.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2.** Use the following data: {(2, 7), (-2, 1), (5, 13), (0, 5)}. Use your calculator to complete the following:

1. Make a scatterplot; record your window. Xmin\_\_\_\_\_, Xmax\_\_\_\_\_, Xscl\_\_\_\_\_, Ymin\_\_\_\_\_, Ymax\_\_\_\_\_, Yscl\_\_\_\_\_
2. Find the equation for the line of best fit.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Draw the line of best fit. Is the relationship positive or negative; strong or weak? Explain.

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**3.** Find the x- and y-intercepts of the line x – 4y = 5. x-intercept \_\_\_\_\_\_\_\_\_\_ y-intercept \_\_\_\_\_\_\_\_\_\_

**Write an equation of a line that meets the following conditions.**

**4.** Write the equation of a line in slope-intercept form that has is parallel to 2x – y = 10 and passes through the point (-5, 1).

**Write an equation of a line that meets the following conditions.**

**5.** Write the equation of a line in slope-intercept form that passes through the points (-2, 5) and (-3, 10).

**6.** Write the equation of a line in slope-intercept form that has an x-intercept of 4 and a y-intercept of 6.

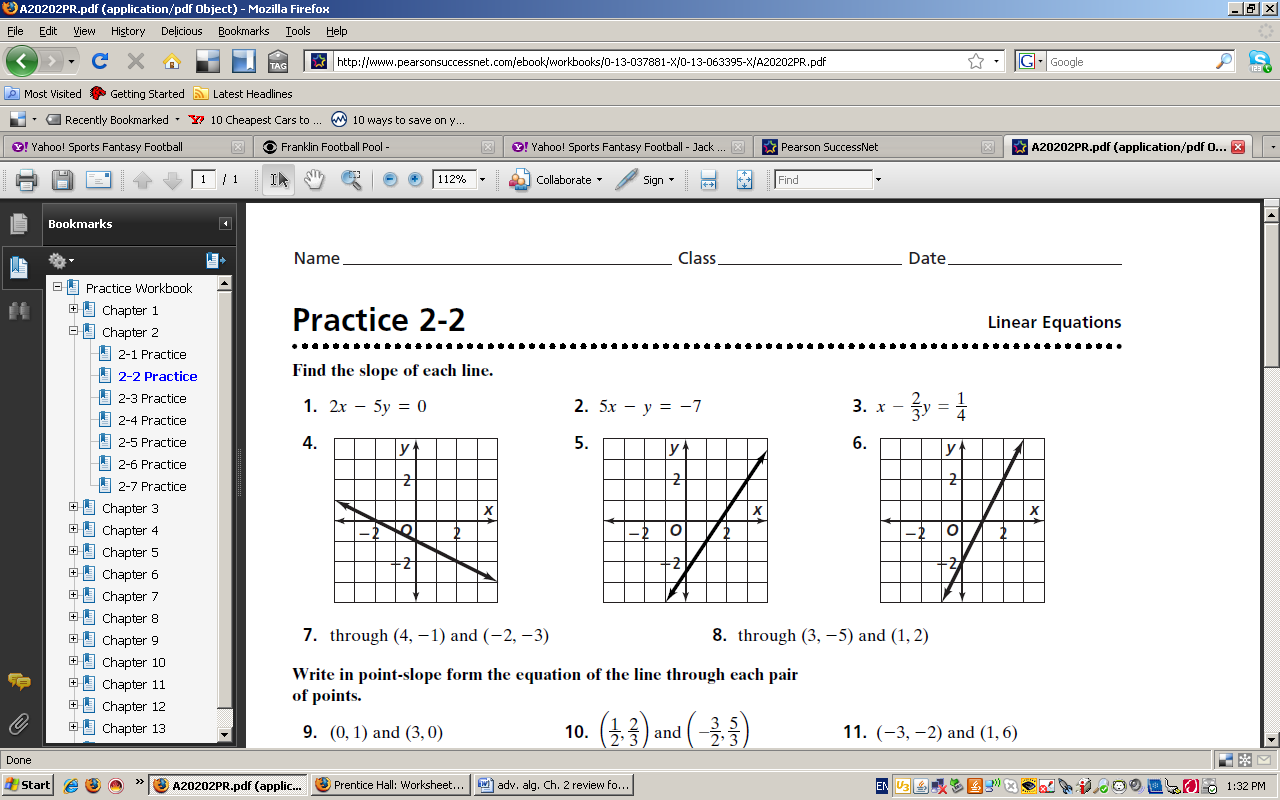
**7.** Write the equation of a line that contains the points (4, 1) and (4, 9).

**8.** Write an example of an equation of a line that is in:

*slope-intercept form standard form point-slope form*

**9.** Write an equation of a line in slope-intercept form that contains (6, -4) and is perpendicular to 2x – 3y = 3.

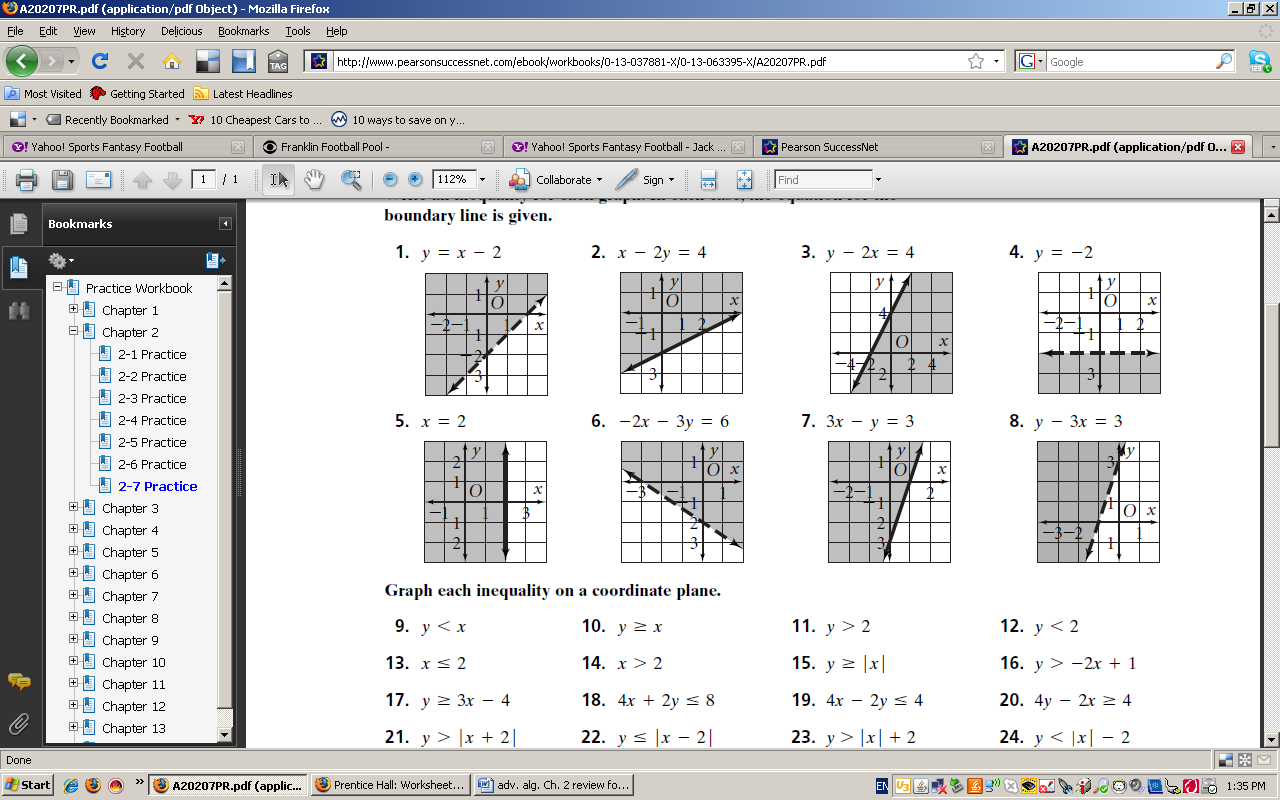
**10.** Evaluate f(x) = 6x2 – 3x for f(–4).



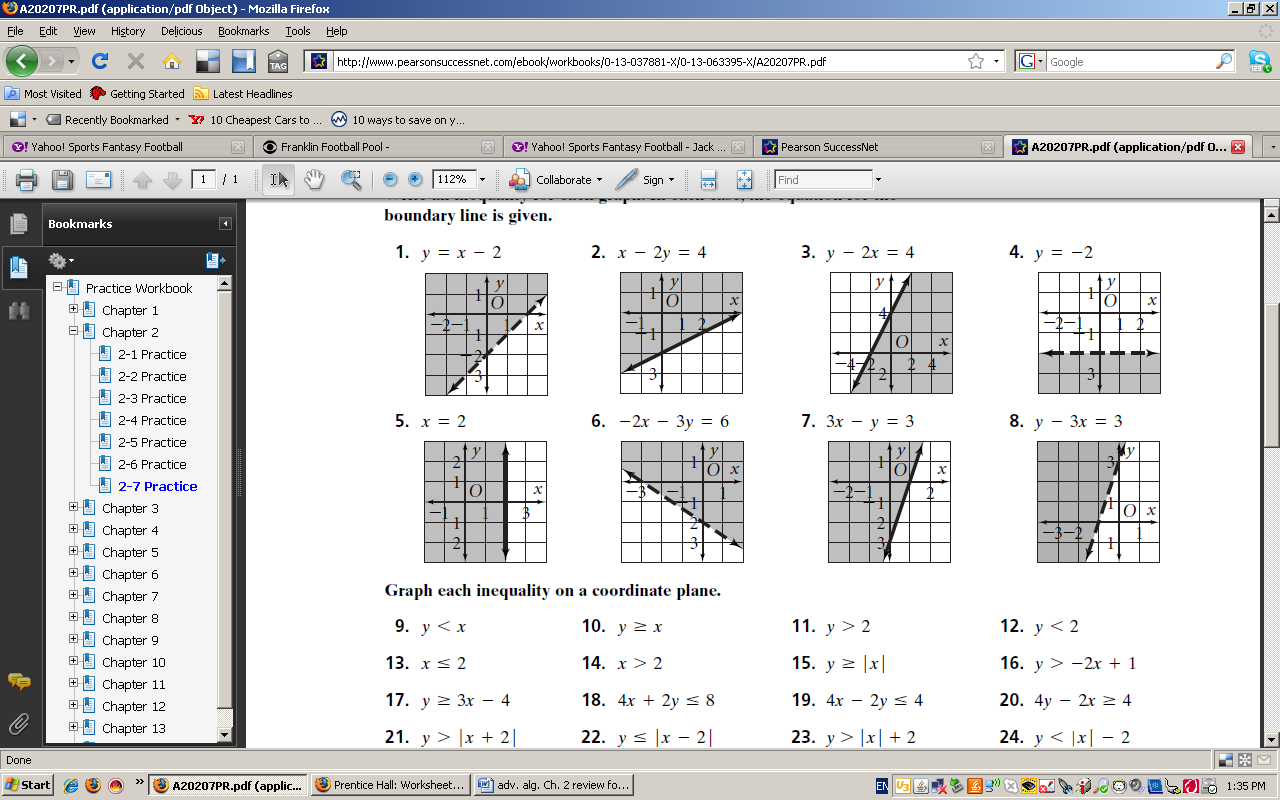
**11.** Write the equation of the line of the graph in slope-intercept form.

**Write an inequality for each graph.**

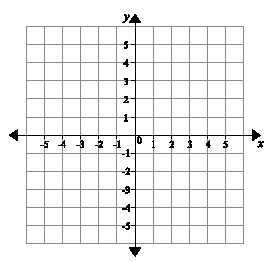
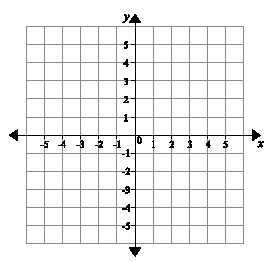
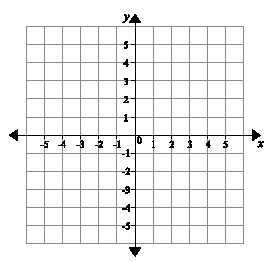
**12.** **13.** **14.** **15.**

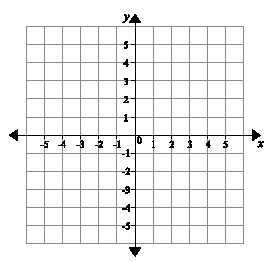
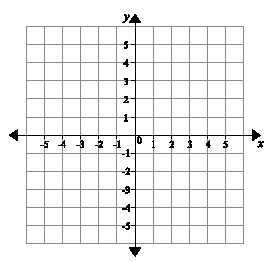
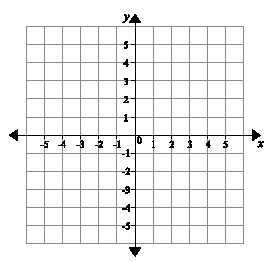
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**16. 17. 18. 19.**



**Graph each inequality. For the absolute value inequalities, make a t-chart that contains the vertex.**

**20.**  **21.**  **22.** 

**23.**  **24.**  **25.** 